



***Slush Machine***

***BMDSD01 BMTSD05***



## **WARNING: PLEASE READ AND FOLLOW THE INSTRUCTIONS BELOW BEFORE OPERATING PRODUCT**

- When using the machine, please confirm that you have read all the instructions within this manual.
- Beware of any child/children or any other persons who are near the machine before operating.
- Do not put hand near moving parts.
- Remove all obstacles, which may interfere with machine functions.
- Keep work area clean and clear of clutter.
- Do not sit or stand on machine
- Do not wear loose cloth or jewellery when operating machine as it may get caught in moving parts and cause injury
- When the machine is abnormal or broken, you should stop using and check it or have it checked by a professional.
- Disconnect from power source before performing maintenance on the machine.
- When machine is not in use, please clean and store properly.
- Do not place any electrical parts or plug/cord in water.
- The cord should be away from the heat.
- Don't hang out the cord on the desk or cabinet.
- Machine may have sharp or pointed edges, use caution when cleaning.
- This machine should only be operated by personnel who can read, understand and respect warnings and instructions regarding this machine and the manual.
- Keep this manual in a safe place for further and regular reference and ordering parts.
- Please write model serial and date of purchase of your machine in the space provided in case you will need to order parts in the future.
- Always work by security code of your country, state, province, city or committee of your work place.

### **Showcase Specific Warnings.**

**The following warnings refer to all BakeMax® Heated Showcases.**

- Keep the surrounding of the show case clean of clutters and papers to avoid fire
- Keep all heated show cases on a non combustible surface
- Keep all heated showcases out of reach of small children
- Always turn off thermostat at night or when show case is not in use
- Always allow time to cool down before cleaning or perform maintenance on showcase

# Contents

## 1 . Exterior layout

- BMDSD01
- BMTSD05

## 2. Setup

- Installation
- Operation
- Cleaning and maintenance

## 3. How to Operate

## 4. Troubleshooting

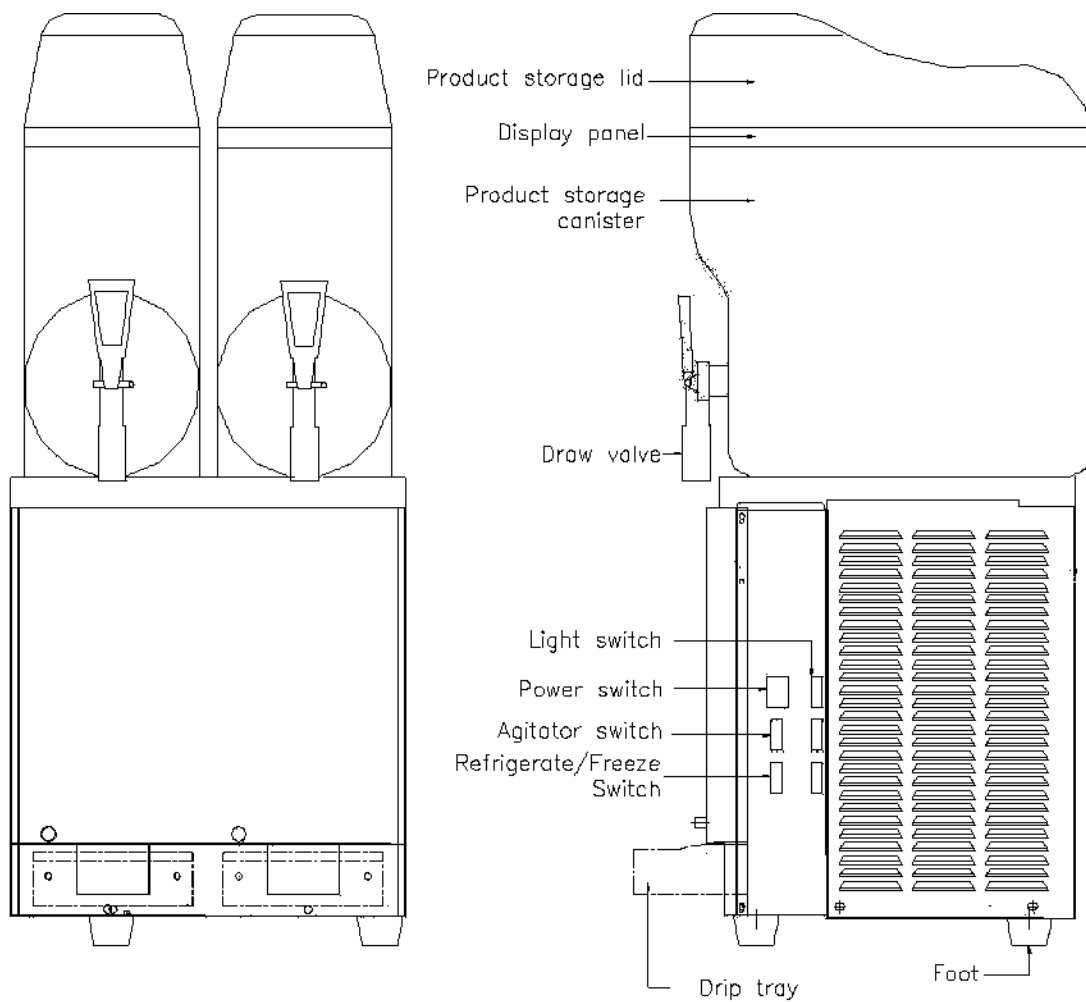
## 5. General Specifications

## 6. Circuit Diagram

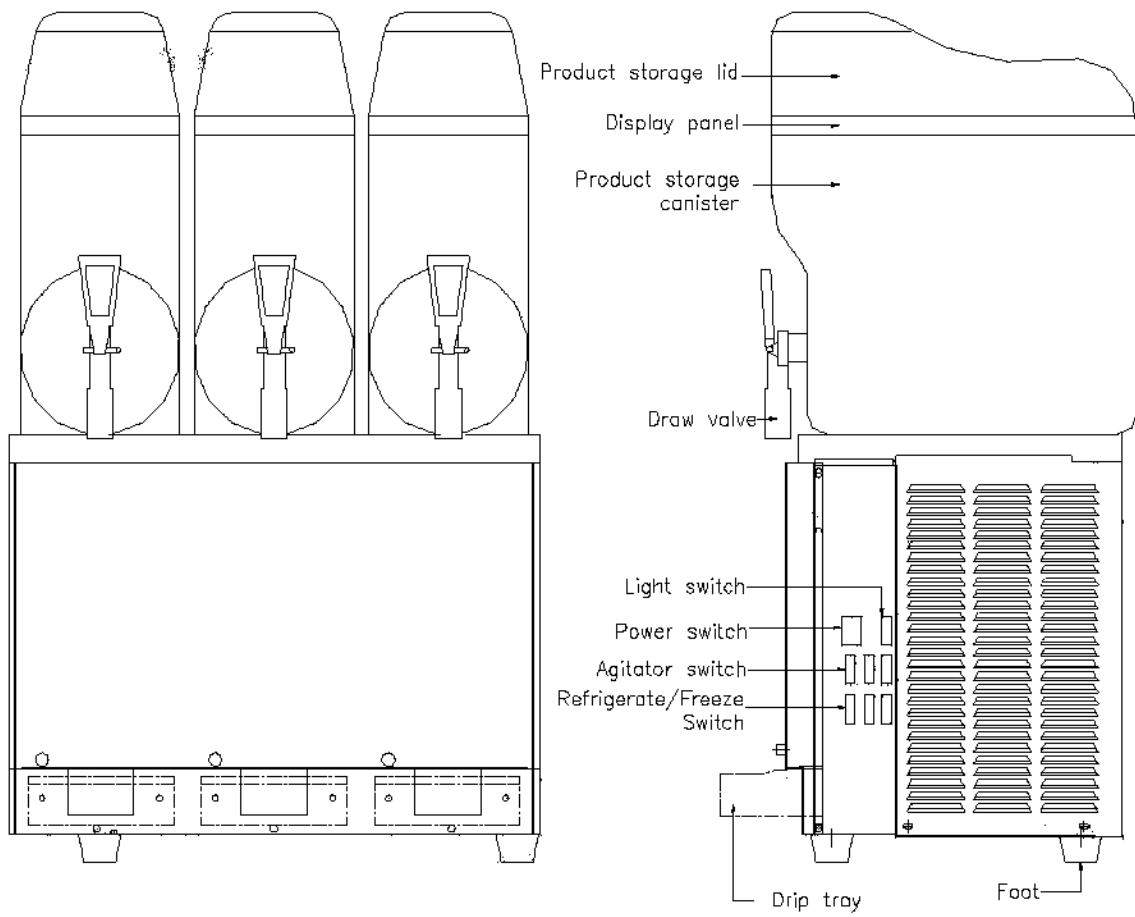
## 7. Parts List

# 1. Exterior layout

**BMDSD01**



## BMTSD05



## 2. Set Up

### Installation Instructions

#### Transportation and unpacking

1. Do not slant the machine over 45°
2. Unpack the product with care to ensure no damage.
3. Do not move the machine while it is full.

#### Location

1. This machine is designed for indoor use only.
2. Locate on a flat, solid and level surface.
3. Do not install.
  - a. in direct sunlight or adjacent to heat sources such as stove tops or ovens.
  - b. where the machine is subject to excessive moisture.
  - c. where the machine may come in contact with gas, oil or electrical leakage.
4. The machine can be leveled by screw adjusting the rubber legs if necessary.

#### Electrical Requirements

1. The machine is designed for use with 220volts {  $\pm$  10% }.
2. Do not use this machine with a double adaptor or extension cord.
3. Where multiple machines are on a single circuit ensure the total power requirement does not exceed the circuit capacity.
4. Ensure the machine is properly earthed.

## Operating Instructions

1. The operator must maintain the machine and location in hygienic conditions to ensure the safety of the product.
2. The machine requires periodic disassembly, cleaning, sanitizing and reassembly as set out in this manual to ensure safe operation.
3. The manufacturer accepts no responsibility for any matters arising from the failure of the operator to comply with the procedures set out in this manual.

- **Ensure Safe Electrical Connection**

Do not use with adaptors or extension cords. Do not use frayed or damaged cords or plugs

- **Take Care When Spraying**

Use of flammable cleaners or solvents may lead to fire.

- **Do Not Store Flammable Materials**

Avoid potential fire risk by keeping flammable materials away from the machine

- **Do Not Sprinkle Water**

Excess water or moisture may lead to electrical hazards. Do not spray water into or onto the machine

## Long Term Storage

If the machine is turned off for an extended period the following procedure should be observed.

1. Remove and discard all unused product
2. Disassemble the machine clean, sanitize and reassemble as per the instructions
3. Allow to air dry

# Cleaning and Maintenance

To maintain high degree of food quality this machine should be cleaned and sanitized

1. Turn the Freeze/refrigerate switch to the off position.
2. Draw off the remaining product.
3. Fill the machine with clean warm water
4. After two or three minutes draw off the water and discard
5. Turn the agitator switch to the off position
6. Turn off the main power switch and remove the plug from the power source.
7. Remove the bowl covers and wipe clean with warm detergent water. DO NOT IMMERSE.
8. Remove the bowl by gently lifting the front and pulling. Once the bowl is free slide it off the agitator.
9. Slide the agitator off the cooling cylinder
10. Remove the large ~O" ring at the back of the bowl and soft seal on the drive shaft
11. With mild detergent and warm water wipe all the machine surfaces.
12. Remove the tap assembly on the bowl by pulling out the locking pin
13. Remove the "O" ring and seal from the draw valve.
14. Wash all parts in warm detergent water Rinse and allow to air dry.

## Reassembly

1. Lubricate the "O" ring and seal on the draw valve.
2. Insert the draw valve assembly into the bowl and hold in place with the tap handle and secure the tap handle with the locking pin
3. Lubricate the inside of the soft seal and slide it into position on the drive shaft.
4. Position the large "O" ring on the back of the cooling cylinder.
5. Lightly lubricate the silver bush located in the front of the bowl.
6. Lightly lubricate the outside of the silicone seal on the drive shaft.
7. Slide the agitator onto the cooling cylinder
8. Slide the bowl over the agitator and align it with the large "O" ring at the back of the cooling cylinder.
9. Align the agitator with the silver bushing in the front of the bowl by lifting the agitator while sliding the bowl into position.
10. Ensure the bowl is set in position with the slot in the front sides of the bowl's base locked over the machine edge.
11. Fill the machine with sanitizing solution and am without refrigeration for five minutes
12. Drain and rinse the machine.
13. The machine is now ready for use

# For Perfect Operation Please Check The Following

1. The machine is installed indoors.
2. The machine has 30cm of clear space on all sides for good ventilation.
3. The location is free of gas, water and excessive heat situations.
4. The power supply is correctly matched to the machine.

- Install On a Flat, Level, Solid Surface

Damaging vibration and excessive noise can result from a poor surface location

- Avoid Vibration

The machine can be leveled using the control screw on the front left side

- Locate With Good Ventilation Away From Heat

- Install Away From Moisture

- Keep Away from Smoke or Gas

- Keep The Surrounding Temperature Above 15 C

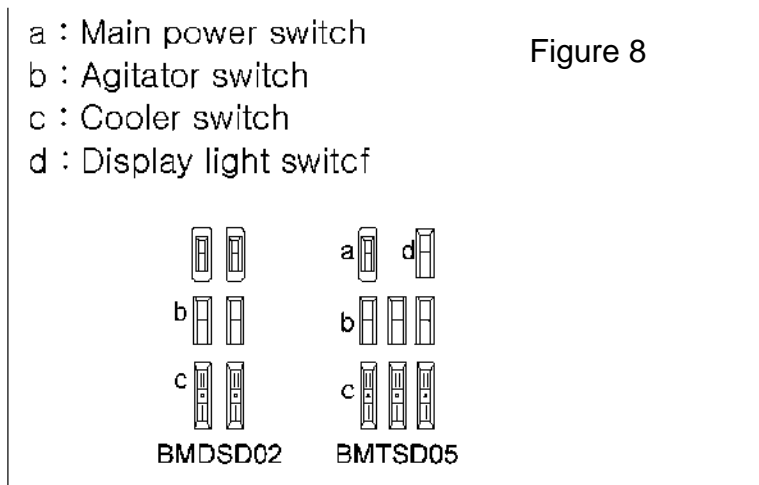
Avoid cold locations

# 3. How to operate

Once the bowl has been cleaned, fill the tank with the desired product (4.5l, 1.2gallons). Do not overfill the tank. Note that when filling, slush occupies more volume than the liquid (approximately 1 gallon of slush). Be sure to consider product ratio (not exceeding 1 gallons total mix for slush) before mixing or pouring product into tank. In order to keep your machine in good working condition, keep your machine full.

If using natural products as a base (coffee, lemon juice, orange juice, etc.), it is required that 5 to 7 oz. of sugar per gallon be added. Follow the dilution instructions on the bottle. In general the mix ratio of the product shouldn't be less than 12.

To Start the agitator, press main power and agitator switches to on position, Figure 8. Note: Depending on the version of your machine, the control panel may look differently than figure 8, please also refer to switch symbols. Note that your machine is equipped with a time delay relay that provides for a three minute delay from the time of the initial start. This is to prevent the compressor from short cycling.



1. For liquid, press the cooler switch to bottom position. For slush, press the cooler switch to up position.  
Note: The switch is a three position switch and order to have the machine off, the switch needs to be in the middle position.
2. If machine is being used as a liquid cooler, the switch at liquid position, up, is provided with an inside thermostat for controlling the liquid temperature.

To illuminate the transparency on top of the unit and the product in the bowl press the display light switch to up position.

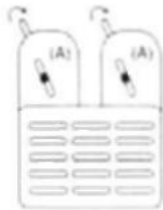
## Normal Operation (Day) For Slush Production

- Power switch on
- Light switch on
- Agitator switch on
- Freeze / Cooling switch press Freeze

## Standby Operation (Night)

- Power switch on
- Light switch off
- Agitator switch on
- Freeze / Cooling switch press Cooling

*Soft condition:  
control to counter-clock wise.*



## Adjusting Product Texture

This machine is factory set to provide perfect product. However the variety of conditions and variation in products means that sometimes adjustments to the product texture are necessary. To adjust the degree of ice forming turn the screw knob on the top of the motor housing at the rear of the bowl an indicator slot is on the rear of the machine Allow thirty minutes for the change to take effect before further adjustment.

## Adjusting Standby Product Temperature

This machine is set to hold the product at 2-6 during standby In the event of this needing to be adjusted a lecoxuoa should be consumed.

# Product Selection and Use

**Once the machine has been installed and sanitized it is ready for use.**

## Product Selection

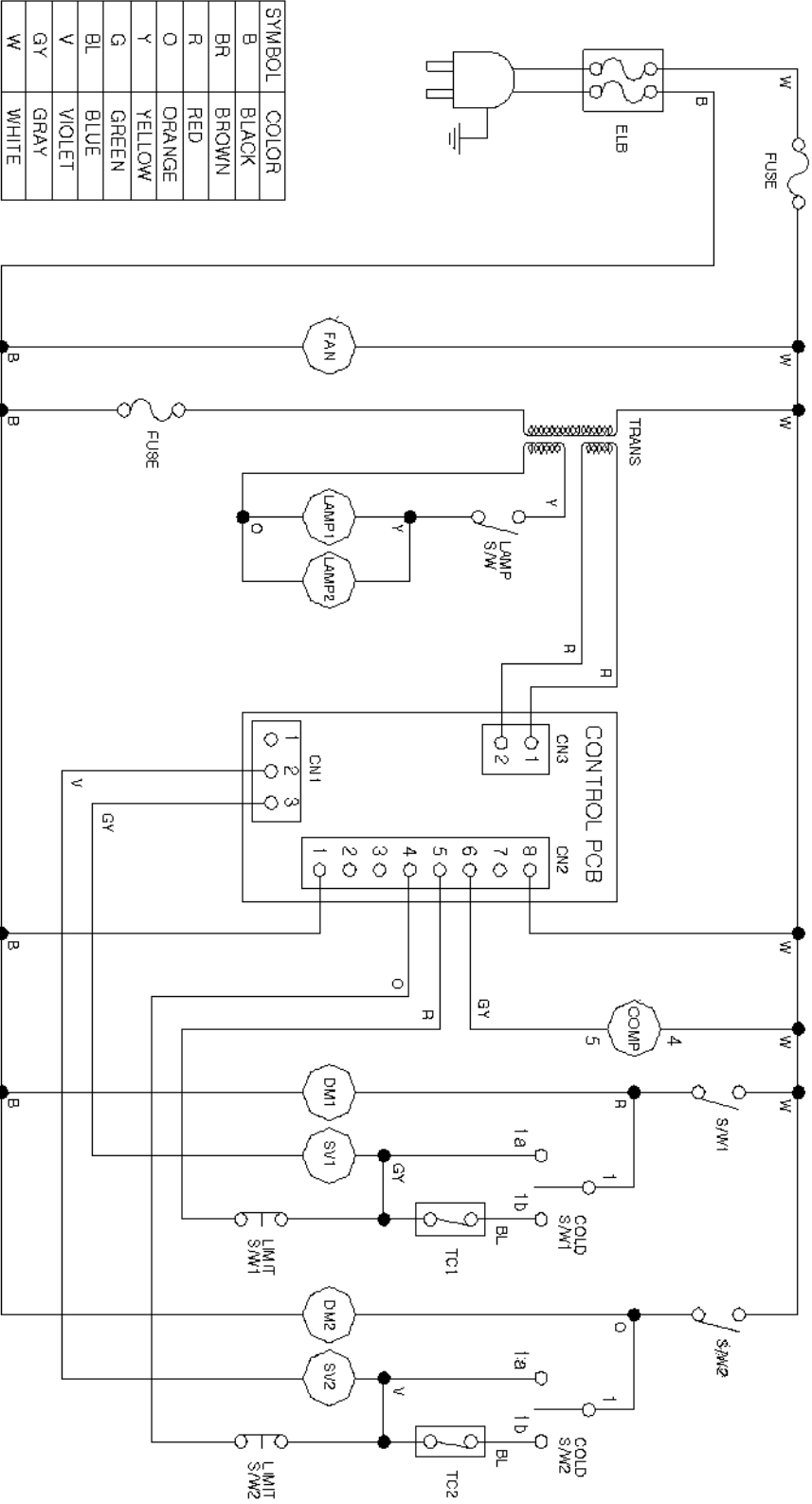
1. This machine is designed for use with products containing 13% – 15% sugar. It is the sugar content which stops the product from freezing solid in the bowl. While products lower sugar content may run well in the machine they are more likely to cause freeze up of the machine and consequential damage to the unit. Such damage is not covered by warranty. Only use products with a 13-15% sugar content.
2. Never mix the product in the bowl. The product should be pre mixed and added as a complete product
3. Handle the product with care and observe hygiene procedures to ensure the safety of the product. Many products required refrigeration only after they are diluted. Ensure you know the requirements of the product you choose.
4. Maintain the product at or above the minimum level marked on the bowl. Allowing the product to fall below this level not only can cause damage to the machine but will increase the power costs of the machine

## 4. Troubleshooting

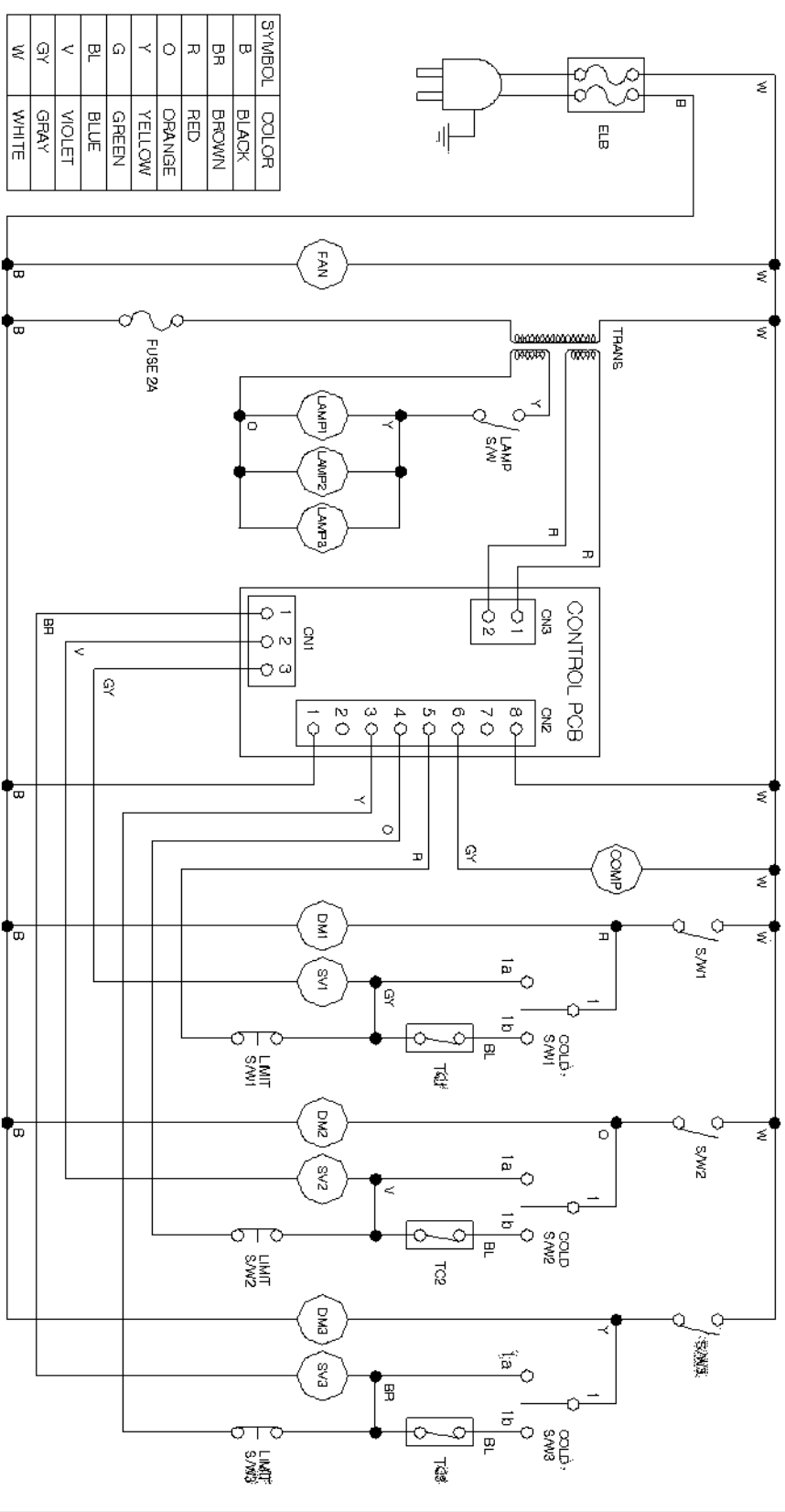
Trouble	Cause	Remedy
The machine has no power	No power from the outlet The fuse has blown Circuit breaker is off	Check the power supply
		Reset the circuit breaker
		Replace the fuse
The agitator stops	The product has frozen the agitator to the barrel	Turn off and defrost Try again. Product may have too low sugar content
The machine will not dispense product	Product level is too low	Refill to at least minimum level
	Product is too frozen	Adjust texture control screw on rear of machine
The machine will not freeze the product	Sugar content is too high	Replace the product with mix at correct sweetness.
Display light does not work	Lamp not plugged in	Plug the lead into the socket in the top of the machine
	Blown lamp	Change the lamp

Division		Contents	
		BMDSD01	BMTSD05
Apparatus		Super slush & Cold juice	
B o d y	Dimensions (d w h)	400 x 400 x 800	630 x 400 x 800
	Cabinet	Stainless steel	Stainless steel
	Insulating Material	Foaming with woo re-tan	Foaming with woo re-tan
Electric Charac- teristics	Elec. Consumption	1100W	1350W
	Operating Current	5.0A	6.1A
	Gear Motor	2EA	3EA
	Fan Motor for the Compressor	82CE-3016	82CE-3016
Freezing Unit	Compressor	The complete closed-up type	
	Condensor	Pin-tube from	
	Evaporator	The tube-type pice	
	The Cooling Controller	The capillary tube	
	Freezing Capacity	295g/Low Pressure 25-28 PSI	
	Freezing Catalyer	R404a	R404a
Freezing Capacity	Material Container	Waters 30°C /6000CC 10°C	Waters 30°C /6000CC 10°C
	Operating Control	On,Off by torque	On,Off by torque
	Attachments	Eaten grease 1 Rubber packing 2 Fuse 1 Lamp2	Eaten grease 1 Rubber packing 3 Fuse 1 Lamp 3
	Operating Condition	Surrounding Temp 33~35°C Voltage:220V,60Hz	Surrounding Temp 30~35°C Voltage 220V,60Hz
	Option	Table Dispenser for paper cups	Table Dispenser for paper cups

## BMDSD01 CIRCUIT DIAGRAM



BMTSD05 CIRCUIT DIAGRAM



# MIL 72 Series

## 24-Hour and 7-Day Universal Time Switches



MIL 72A  
(Surface Mounting)



MIL 72E  
(Flush Mounting)

### APPLICATION

Time based control of lighting, ventilating, heating, cooling or other electrical loads in commercial and industrial applications. The MIL 72 time switches are available with a 24-hour or 7-day program dial with a single pole/double throw switch.

The MIL 72A series is intended for surface mounting. The control is completely enclosed in a plastic housing and includes a terminal cover and sub-base for installation and hard wiring.

The MIL 72E is intended for flush (panel) mounting. All units are supplied with a clear plastic cover.

### TECHNICAL DATA

Supply Voltage:	24, 120 and 240VAC, 60Hz models Quartz: 24V AC/DC, 120 and 240VAC 50/60 Hz
Switch Type:	SPDT
Switch Rating:	21A/250VAC resistive 1350 watt tungsten 1HP @ 120VAC 2HP @ 240VAC 16 FLA, 96 LRA, 120VAC ind. 12 FLA, 72 LRA, 240VAC ind.
Power Consumption:	<b>24V:</b> 0.1VA; <b>120V:</b> 0.5VA; <b>240V:</b> 1.0VA
Ambient Temperature Range:	-40°F to 180°F, synchronous units -14°F to 131°F, quartz units
Reserve Carryover:	150 hours for quartz units

### INSTALLATION

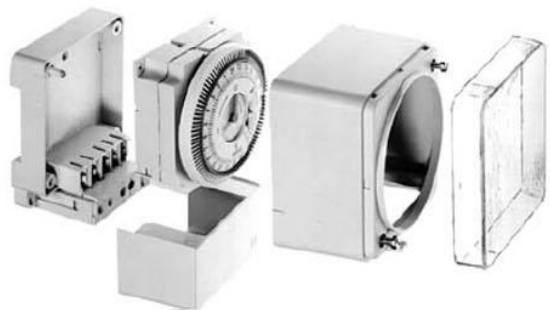
To the installer:

1. Read operating instructions carefully.
2. Check the input and output ratings marked on the unit to make sure this product is suitable for your supply power and application.
3. Disconnect supply power prior to installation to prevent electrical shock.
4. Wire in accordance with National and Local electrical code requirements.

The MIL 72 time switch can be surface, flush or rail mounted and is also available with an enclosure for stand-alone applications.

### SURFACE MOUNTING—MIL 72A

Remove dust-proof cover, loosen two screws on opposite corners. Remove the housing that surrounds the time switch and the terminal cover away from the base.



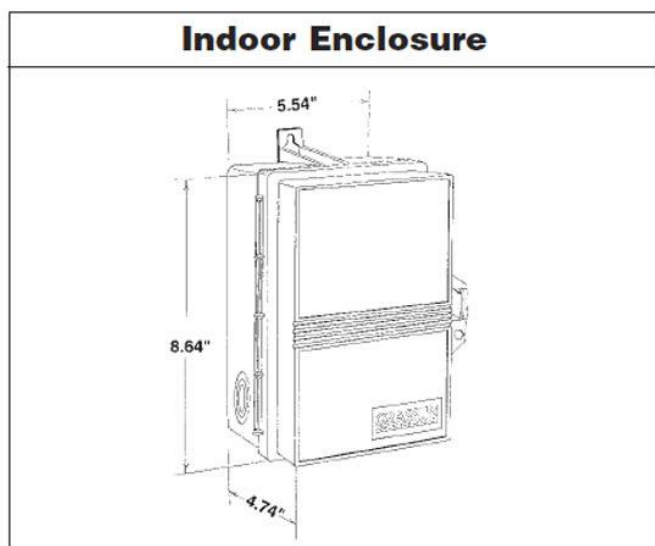
Place screw through pre-set holes in base and screw to back of panel or wall.

Wire in accordance with instructions. Depending upon the specific installation, you may find it more convenient to have wiring completed before attaching the base. Replace terminal cover and push timer firmly onto plug-in base. Now replace housing and secure with screws.

### NOTES:

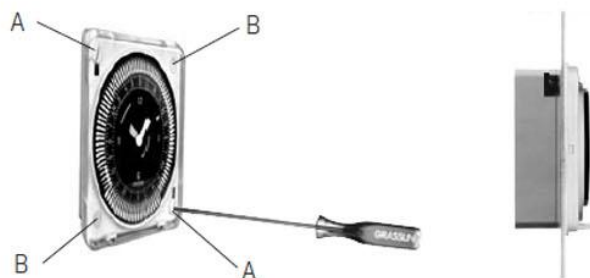
- The MIL 72A may also be DIN rail mounted—simply break out housing part that fits over rail on each side.
- 24V quartz unit will operate on 6VDC, 12VDC, or 24VDC

For stand-alone installations, the unit may be surface mounted inside an indoor enclosure which is available from Grasslin Controls Corp. or your wholesaler.



### FLUSH MOUNTING—MIL 72E

Cut a square hole  $2\frac{5}{8}" \times 2\frac{5}{8}"$  (66mm x 66mm) in the front of the panel. Insert the time switch through the opening. With screwdriver press down and turn outer screws (A) until flanges are in position to fasten the unit in front panel, then release. Insert plugs into holes as per illustration (B).



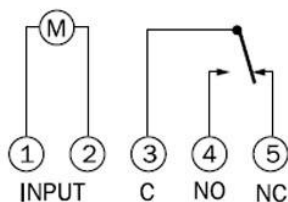
Use  $\frac{1}{4}"$  quick connects and make connections in accordance with the wiring diagram shown and applicable code requirements.

### WIRING

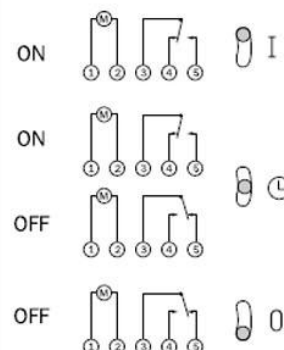
1. Disconnect the power.
2. Wire according to the proper voltage marked on the unit. Wiring to incorrect voltage will void the warranty.
3. Connect wiring according to the wiring diagram. The terminals on the MIL 72A sub-base will accommodate 10 to 24 AWG wire.

## Terminal Connections

Off position with trippers pushed in (trippers pushed out will close contacts 3 and 4 and turn load on)



3-way manual override switch  
 I = permanent ON  
 L = automatic  
 0 = permanent OFF



## PROGRAMMING

The weekly program dial shows the seven days of the week and AM/PM imprints for each day. The 24-hour dial has quarter-hour divisions and AM/PM indications.

The time switch is set by pushing the captive trippers to the outer ring position for the entire period that the load is to be turned ON, i.e., fifteen minutes for each tripper on the 24-hour dial and 2 hours for each tripper on the 7-day dial. When the tripper is pushed to the inside, the switch is in the OFF position.

## SETTING TIME

**TO SET THE CURRENT TIME (AND DAY OF WEEK ON 7 DAY UNITS), TURN THE MINUTE HAND CLOCKWISE. DO NOT SET THE TIME BY ROTATING "OUTER" DIAL.**

Turn the minute hand clockwise until the day of the week (7-day timer) and the time of day on the outer dial is aligned with the triangle marker on the inner dial (two o'clock position).

Example for 7-day program dial Monday 10:30 AM. Turn the minute hand clockwise until Monday 10:30 AM is aligned with the triangle on the inner dial. The hour and minute hand will show exactly 10:30.

Example for 24-hour program dial 10:30 AM. Turn the minute hand clockwise until 10:30 AM is aligned with the triangle on the inner dial. The hour and the minute dial will show exactly 10:30.

## MANUAL OVERRIDE

All MIL 72 units are available with an optional 3-way manual override (type designation "H").

# Warranty



- SPECIAL TERMS & CONDITIONS**
- BakeMax® reserves the right to make improvements or equipment specification changes without prior notice.
  - Set up and installation is client's responsibility.
  - Failure to follow all instructions in operations manual, properly install, maintain equipment, follow capacity charts, or electrical information may void warranty.

Titan Ventures International Inc.  
PO Box 23083, Moncton NB, E1A 6S8  
Toll Free: 1-800-565-BAKE  
Telephone: 1-506-858-8990  
Fax: 1-506-859-6929

- One year Parts and Labor limited warranty.
- Warranty begins at date of installation, delays of installation and extended warranty must be approved.
- All equipment must be properly installed and connected by qualified professionals if not a standard Plug 'N Go\* operation.
- All equipment must be used within tolerance limits of machine.
- Any abuse of equipment or improper use of machine will void the warranty.
- Accessories or attachments have 90 day warranty to be repaired or replaced.
- Repairs include Parts and Labor only, excluded are the following:
  - Electrical components such as fuses, bulbs, elements switches are not covered by this warranty.
  - Overtime labor rates.
  - Expedited freight for parts.
  - Travel charges.
- All defective parts must be returned to BakeMax® for credit.
- BakeMax® is not responsible for production downtime or product losses.
- Repairs must be pre-authorized by BakeMax® prior to work commencing.
- Emergency service 24/7 at 1-800-565-2253

\*Plug 'N Go operation requires machine be properly connected to proper wall outlet.

**Think Quality, Value, Service.....Think**

**BakeMax®**

Printed in Canada

Toll Free: 1-800-565-BAKE Web Site: [www.bakemax.com](http://www.bakemax.com) E-mail: [sales@bakemax.com](mailto:sales@bakemax.com)